

THE EFFECT OF AERUA LANATA (POLPALA) ON URINARY OUTPUT

M. Udupihille and M. T. M. Jiffry
(Department of Physiology, University of Peradeniya)

The common garden herb *Aerua lanata* (S. polpala, T. thengapookeerai) is given orally by ayurvedic practitioners either singly or in combination with several other herbs in the treatment of urinary infections (Attygalle 1912). However, the exact effect of this extract on kidney function is not known. The present study was undertaken to determine the effect of an orally administered extract of *Aerua lanata* on urine output.

Subjects were randomly selected male and female medical students of age group 18-24 years. The extract of *Aerua lanata* was prepared by boiling a known weight of the plant in a measured quantity of water until the volume of water was halved. The subjects drank 200 ml of the freshly prepared extract and urine output was measured at 15 minute intervals for 2½ hours. Control experiments were carried out on a separate set of subjects using 200 ml of water or 200 ml of saline as the drink.

The plant extract induced a diuresis, consistent over two repetitions, in 70% of the subjects. The rest needed a much higher concentration of the extract to produce a diuresis. The urine output observed with the plant extract was significantly elevated when compared with controls (water: = $X^2 = 39.2$ d.f. = 8 $p > 0.001$ saline: = $X^2 = 64.2$ d.f. = 8 $p > 0.001$). Leaves and flowers were found to be the most effective in inducing a diuresis. The fresh leaves and flowers induced an intense diuresis with a peak urine flow at 15 minutes. An equivalent quantity of the dried leaves and flowers (from a separate batch of the plant material) produced a milder diuresis with a peak urine flow at 30-45 minutes.

It is concluded that the fresh leaves and flowers of *Aerua lanata* contains a factor producing early diuresis. Drying apparently destroys this factor. It also appears that the dried preparation contains another diuretic factor which causes a later-onset diuresis.

Reference :

Attygalle, J. (1912). Sinhalese materia medica. pub. Colombo Apothecaries p. 23.